The Facility Manager's Guide to Scan to BIM for Active Las Vegas Properties

Precision documentation strategies for high-performance, always-on hospitality and gaming environments.

The Las Vegas Challenge: Constant Evolution

24/7 Operations

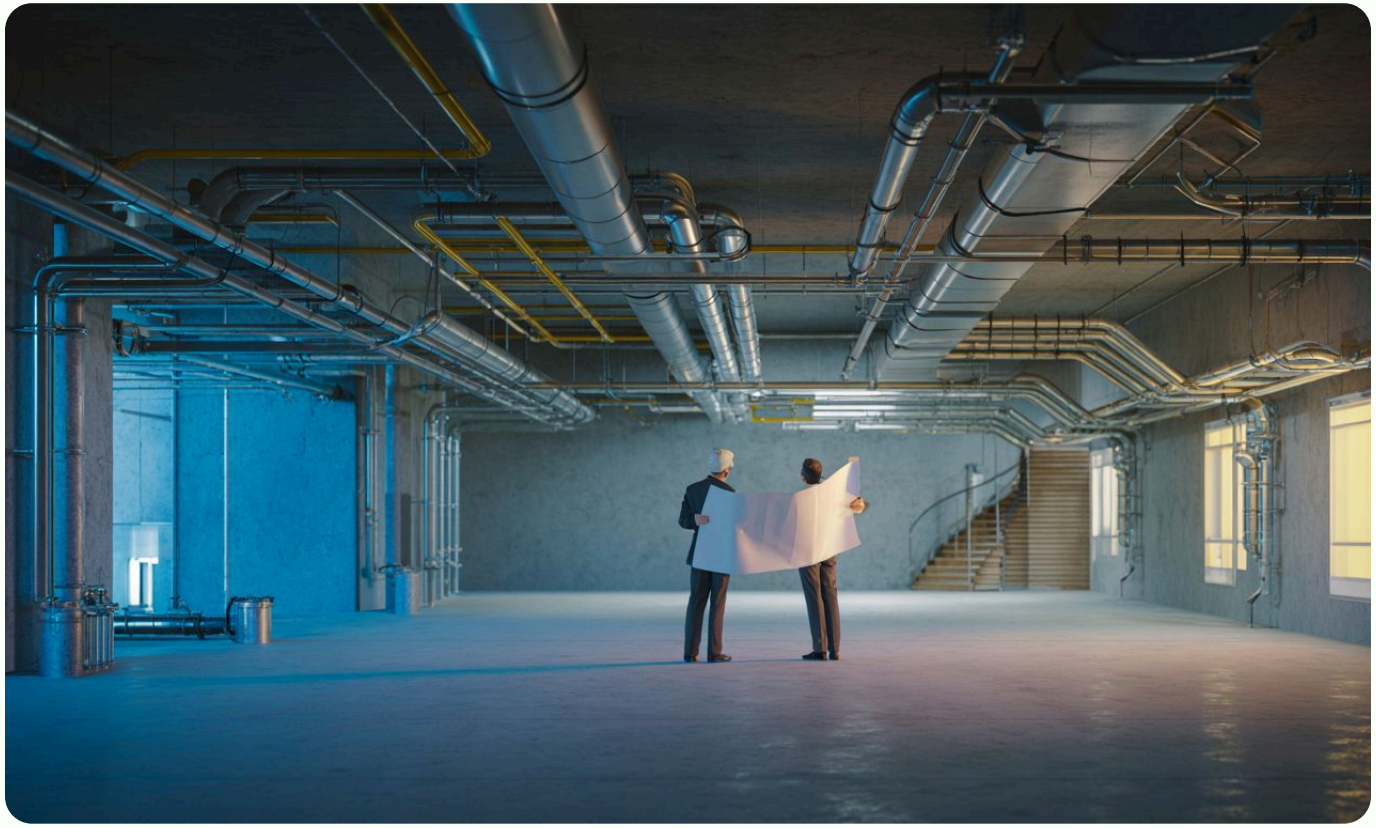
Las Vegas properties never stop – renovations must happen around active guests, staff, and gaming floors.

Rapid Refresh Cycles

Hospitality brands refresh interiors and MEP systems faster than documentation teams can keep up.

Costly Field Errors

Outdated record drawings lead to expensive clashes, rework, and dangerous surprises behind walls and ceilings.



CHAPTER 1

The Reality of Modern Documentation

Traditional surveys struggle to keep pace with Las Vegas's complexity. **Dense MEP ceiling zones** – packed with ductwork, conduit, and piping – are routinely missed or misrepresented in hand-measured drawings.

Manual documentation is slow, prone to human error, and simply lacks the depth required for complex retrofits in active, occupied spaces. The result? Costly surprises mid-construction.

PRECISION MATTERS

Why Accuracy Is Everything in High-Stakes Renovations

⏱️ Tight Shutdown Windows

Renovations often occur in narrow overnight or weekend closures – there is zero tolerance for field surprises caused by inaccurate drawings.

🔇 Reduced Coordination Noise

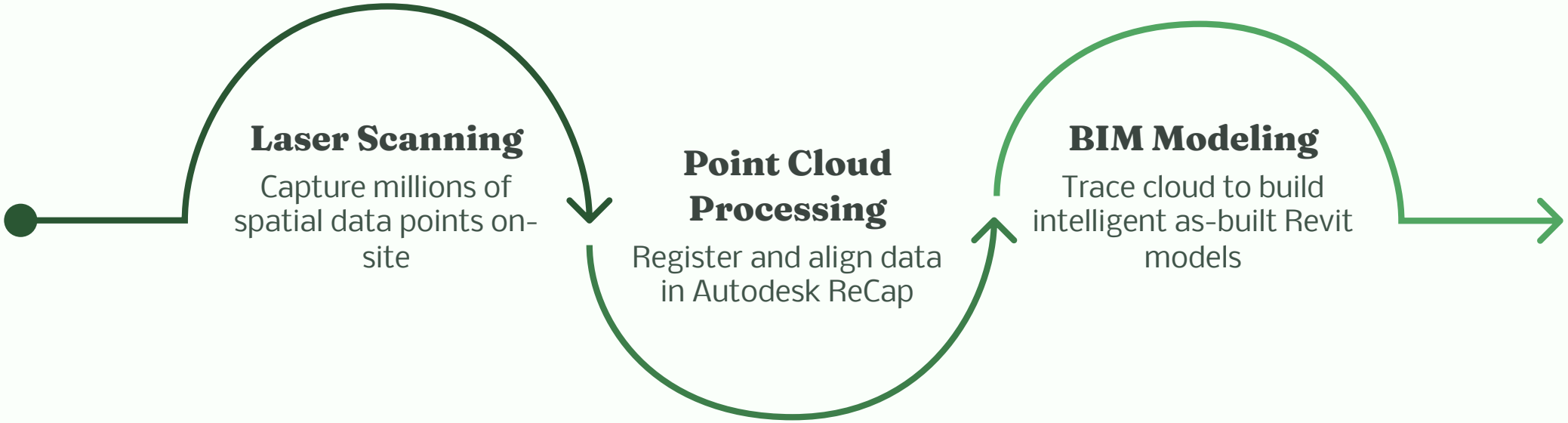
Accurate as-built documentation eliminates the RFIs, field conflicts, and last-minute redesigns that drain budgets and schedules.

💰 Protected Budget & Timeline

Validated geometry gives contractors and facility managers the confidence to commit to fixed-price scopes without hidden risk.

CHAPTER 2

The Scan to BIM Workflow


Laser Scanning
Capture millions of spatial data points on-site
Point Cloud Processing
Register and align data in Autodesk ReCap
BIM Modeling
Trace cloud to build intelligent as-built Revit models

This structured workflow transforms raw physical environments into precise, intelligent 3D models – enabling better decisions for facility managers throughout the entire asset lifecycle.

Advanced Reality Capture with LiDAR

Modern LiDAR technology delivers **millimeter-level accuracy** – typically within 2 - 5 mm – capturing every surface, fixture, and spatial relationship in a single, comprehensive scan.

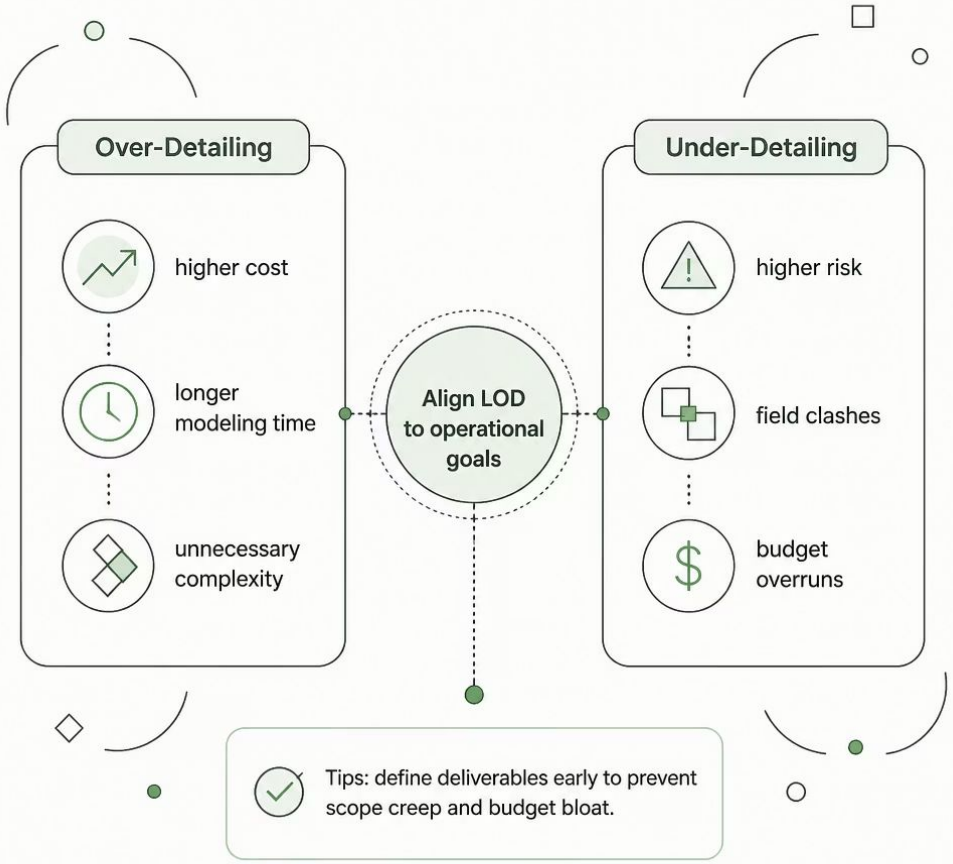
- Captures interior and exterior environments simultaneously
- Eliminates measurement gaps common with tape-and-sketch surveys
- Drastically reduces the need for repeated site visits, minimizing disruption to active operations
- Delivers consistent, repeatable data regardless of environment complexity

CHAPTER 3

Defining Your Level of Development (LOD)

1	2	3
LOD 300	**LOD 350**	**LOD 500**
Basic coordination and clash detection. Ideal for early-stage renovation planning and design validation.	Complex MEP retrofits and tight service corridors. Required for multi-trade coordination in dense ceiling zones.	Field-verified as-built conditions for long-term facility management, operations, and capital planning.

Choosing the right LOD is not a technical detail — it is a strategic decision that directly impacts project cost, risk, and long-term value.



Strategic LOD Selection

There is no universal LOD – the right choice depends on what you plan to do with the model. **Over-detailing** drives up modeling costs unnecessarily, while **under-detailing** introduces coordination risk that surfaces as expensive field problems.

Define your model's intended use case before scope begins – this single decision prevents budget bloat and scope creep on every project.

CHAPTER 4

The Path to Digital Twins

BIM as the Foundation

The as-built BIM model provides the precise geometric and spatial backbone required to build a reliable digital twin.

Live IoT Integration

Connect BIM to live IoT feeds and Building Management Systems for real-time monitoring of HVAC, lighting, and energy systems.

Predictive Operations

Move from reactive break-fix maintenance to proactive, data-driven facility operations that reduce downtime and cost.

Transforming the Facility Lifecycle

A digital twin is not a static deliverable – it is a **living replica** of your facility's current performance, evolving alongside every system change, renovation, and operational shift.

- Dynamic asset lifecycle assessment for smarter capital investment decisions
- Seamless documentation handovers that eliminate the "lost knowledge" problem between renovation cycles
- Real-time performance benchmarking against design intent

WHY TEJJY

Summary: Why AEC Teams Choose Tejjy

20+ Years of Expertise

Two decades of proven experience in 3D digitization and Scan to BIM services across the United States.

Nationwide Reach

Deep expertise across commercial, industrial, hospitality, and institutional projects in every major market.

High-Precision Deliverables

Trusted for accurate, validated as-built documentation that facility managers and contractors can rely on from day one.

Let's Build Something Precise Together

Ready to bring accuracy, efficiency, and digital intelligence to your Las Vegas property? Tejjy's Scan to BIM experts are here to guide your next renovation or facility management project from scan to delivery.

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